

Total No. of Questions : 8]

SEAT No. :

P1437

[5124]-101

[Total No. of Pages : 2

M.Sc.

BIOCHEMISTRY

BCH - 170 : Biomolecules

(2013 Pattern) (Semester - I) (Credit System)

Time : 3 Hours]

[Max. Marks : 50

Instructions to the candidates:

- 1) *Answer to both sections should be written on separate answer sheets.*
- 2) *Q.4 and Q.8 are compulsory.*
- 3) *Attempt any two questions from Q.1 to Q.3 and any two from Q.5 to Q.7.*
- 4) *Figures to the right indicate full marks.*

SECTION - I

Q1) Answer the following:

- a) What are phospholipids? Explain with examples. [3]
- b) Explain general properties of carbohydrates. [3]
- c) Explain LDL and HDL with suitable example. [4]

Q2) Answer the following:

- a) What is rancidity? Explain. [2]
- b) Write an account on derivatives of sugars. [4]
- c) Describe formation of Miscelle and liposomes. [4]

Q3) Answer the following:

- a) What are vitamins? Explain their biological role. [3]
- b) Classify lipids with suitable example from each class. [5]
- c) What are chylomicrons? [2]

P.T.O.

Q4) Answer any one of the following: [5]

- a) What are carbohydrates? Classify with suitable example.
- b) Describe biological significance of lipids.

SECTION - II

Q5) Answer the following:

- a) Write note on rare amino acids. [3]
- b) Draw & explain different structural motifs in protein structure. [3]
- c) Explain different chemical properties of amino acids. [4]

Q6) Answer the following:

- a) Draw the structure of following tetrapeptide Asp-Gly-Val-Leu. [2]
- b) Write a short note on helical structure of protein. [4]
- c) Write a note on Globular proteins. [4]

Q7) Answer the following:

- a) Explain solid phase synthesis. [5]
- b) Peptide bond shows double bond character. Explain. Comment on features of peptide bond. [3]
- c) Define Zwitter ion. [2]

Q8) Answer any one of the following: [5]

- a) Write short note on Ramchandran plot.
- b) Explain end group analysis.

